In the Claims:

1. (Amended) A printing unit cylinder for a rotary printing machine, comprising a body having a barrel as a centerpiece and two journals, a respective one of the journals being on each end of the barrel; only the barrel being made of a metallic material having a linear coefficient of expansion of about $\alpha < 5 \times 10^{-6} \, \text{K}^{-1}$ in a temperature range of from about 20° to about 60°.